



QUALITY OF CARE AND OUTCOMES ASSESSMENT

TEMPORAL EFFECT ON GENDER DIFFERENCES IN PATIENTS UNDERGOING EVALUATION FOR CORONARY ARTERY DISEASE

ACC Poster Contributions

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Background: Gender bias has influenced treatment and referral practices in patients with suspected coronary artery disease (CAD), but may be reduced with increasing awareness of the impact of CAD in women.

Methods: Gender and temporal trends influencing referral for angiography after stress testing was explored in a retrospective analysis from a single hospital. Between Jan 1995 and Dec 2005, 11,491 patients (50% female) underwent stress myocardial perfusion imaging (MPI). The imaging results and referral for angiography were compared in men and women over time. All-cause survival based on stress test results and referral for angiography were studied.

Results: 3667 patients (47% female) referred for stress MPI had an abnormal test. Men with an abnormal MPI were more likely to undergo angiography compared to women (55% vs. 44%, odds ratio (OR) 1.15, $P=0.04$), particularly from 1995-99 when the OR of being referred for angiography after abnormal MPI if male (vs. female) was 1.3 ($P=0.05$) compared with OR=1.1 ($P=0.15$) for 2000-05. After adjusting for CAD risk factors, gender did not significantly influence the referral for angiography. Any patient with abnormal MPI in 2000-05 was more likely to undergo angiography compared to those in 1995-99 (OR=1.72, $P<0.001$). All-cause mortality was highest in women with an abnormal MPI who did not undergo angiography (Hazard Ratio(HR)=2.11, $P<0.001$) compared to men (HR=1.38, $P=0.01$) or women (HR=1.55, $P=0.001$) who underwent angiography after an abnormal MPI and men (HR=1.91, $P<0.001$) who did not undergo angiography after an abnormal MPI.

Conclusions: The gender bias in referral for angiography after an abnormal stress MPI does not persist after adjusting for CAD risk factors. Use of angiography has increased recently in both genders. Women not referred for angiography have the highest mortality, which may reflect poorer health status.